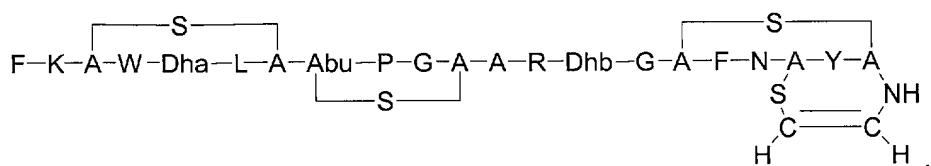


We claim:

1. An isolated lantibiotic comprising SEQ ID NO:6 or a biologically functional variant thereof.
2. An isolated lantibiotic comprising the following structure:



3. An isolated pre-lantibiotic comprising SEQ ID NO:12 or a biologically functional variant thereof.
4. The isolated lantibiotic of claim 1, wherein the biologically functional variant comprises at least one conservative amino acid substitution.
5. The isolated lantibiotic of claim 4, wherein the conservative amino acid substitution occurs at amino acid position 1, 2, 4, 5, 6, 13, 19 or combinations thereof.
6. The isolated lantibiotic of claim 4, wherein a conservative amino acid substitution occurs at amino acid number 13, and comprises a Lys in place of an Arg (SEQ ID NO:7).
7. The isolated lantibiotic of claim 4, wherein a conservative amino acid substitution occurs at amino acid number 19 and comprises a Dha in place of an Ala (SEQ ID NO:8).

8. The isolated lantibiotic of claim 4, wherein a conservative substitution occurs at amino acid number 6 and comprises a Phe in place of a Leu (SEQ ID NO:9).

9. The isolated lantibiotic of claim 1, wherein the biologically functional variant comprises:

- an amino acid substitution at amino acid number 6, which comprises a Phe in place of a Leu;
- an amino acid substitution at amino acid number 13, which comprises a Lys in place of an Arg; and
- an amino acid substitution at amino acid number 19, which comprises a Dha in place of an Ala;

which is shown in SEQ ID NO:10.

10. The isolated lantibiotic of claim 1, wherein the biologically functional variant comprises:

- an amino acid substitution at amino acid number 6, which comprises a Phe in place of a Leu; and
- an amino acid substitution at amino acid number 13, which comprises a Lys in place of an Arg;

which is shown in SEQ ID NO:11.

11. A detritrice comprising the isolated lantibiotic of claim 1 and a carrier or excipient.

12. A bacteriocidal or bacteriostatic composition comprising an effective amount of the lantibiotic of claim 1 and a carrier or excipient.

13. A bacteriocidal or bacteriostatic composition comprising an effective amount of the lantibiotic of claim 9 and a carrier or excipient.

14. A bacteriocidal or bacteriostatic composition comprising an effective amount of the lantibiotic of claim 10 and a carrier or excipient.

15. A pharmaceutical composition comprising the lantibiotic of claim 1 and a pharmaceutically acceptable carrier or excipient.

16. A pharmaceutical composition comprising the lantibiotic of claim 9 and a pharmaceutically acceptable carrier or excipient.

17. A pharmaceutical composition comprising the lantibiotic of claim 10 and a pharmaceutically acceptable carrier or excipient.

18. The pharmaceutical composition of claim 15, wherein the lantibiotic is active against a Gram positive bacteria.

19. The pharmaceutical composition of claim 18, wherein the Gram positive bacteria is selected from the group consisting of *Actinomyces*, *Bacillus*, *Clostridium*, *Corynebacterium*, *Enterococcus*, *Listeria*, *Lactobacillus*, *Mycobacterium*, *Propionobacteria*, *Staphylococci*, and *Streptococci*.

20. The pharmaceutical composition of claim 18, wherein the Gram positive bacteria is selected from the group consisting of *Corynebacterium diphtheriae*, *Propionibacterium acnes*, *Listeria monocytogenes*, *Bacillus anthracis*, and *Mycobacterium phlei*.

21. The pharmaceutical composition of claim 18, wherein the lantibiotic is active against a Gram negative bacteria.

22. The pharmaceutical composition of claim 18, wherein the Gram negative bacteria is selected from the group consisting of *Flavobacterium*, *Actinobacillus*, *Enterobacter*, and *Neisseria*.

23. A pharmaceutical composition comprising a bacteriostatic or bacteriocidal amount of the lantibiotic of claim 1 and a carrier or excipient.

24. A pharmaceutical composition comprising a bacteriostatic or bacteriocidal amount of the lantibiotic of claim 9 and a carrier or excipient.

25. A pharmaceutical composition comprising a bacteriostatic or bacteriocidal amount of the lantibiotic of claim 10 and a carrier or excipient.

26. A method of controlling the growth of bacteria in an animal comprising administering to the animal a composition comprising the lantibiotic of claim 1, whereby growth is controlled.

27. The method of claim 26, wherein the animal is a human.

28. A method of treating or ameliorating a bacterial infection in an animal comprising administering to the animal a composition comprising the lantibiotic of claim 1, whereby the infection is treated or ameliorated.

29. The method of claim 28, wherein the animal is a human.

30. A method for controlling bacterial growth in or on an object comprising applying the lantibiotic of claim 1 to the object, whereby bacterial growth is controlled.

31. The method of claim 30, wherein the object is food.